SUBJECT: Abbreviated Risk Assessment for J15-27 to -30

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DATE: June 23, 2015

I. INTRODUCTION

The Agency has received a Microbial Commercial Activity Notice from DSM Bio-based Products and Services (DSM Nutritional Products) for four intergeneric strains of





II. TAXONOMY AND CHARACTERIZATION

A. Recipient Microorganism



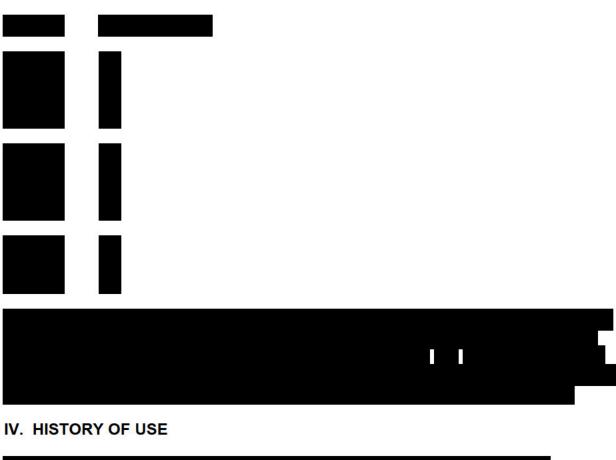
B. Donor Microorganisms

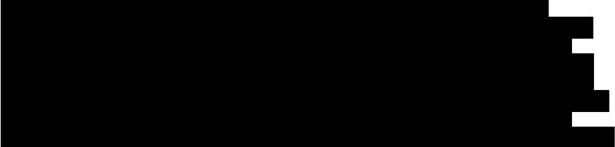


The other donor is *E. coli* which is a non-sporeforming Gram negative rod bacterium that is facultatively anaerobic with both a respiratory and fermentative type of metabolism. The typical habitat for *E. coli* is the lower intestines of humans and other warm-blooded animals.

III. PRODUCTION VOLUME

The anticipated production volumes for the modified active dry yeast were given by quarters as follows:





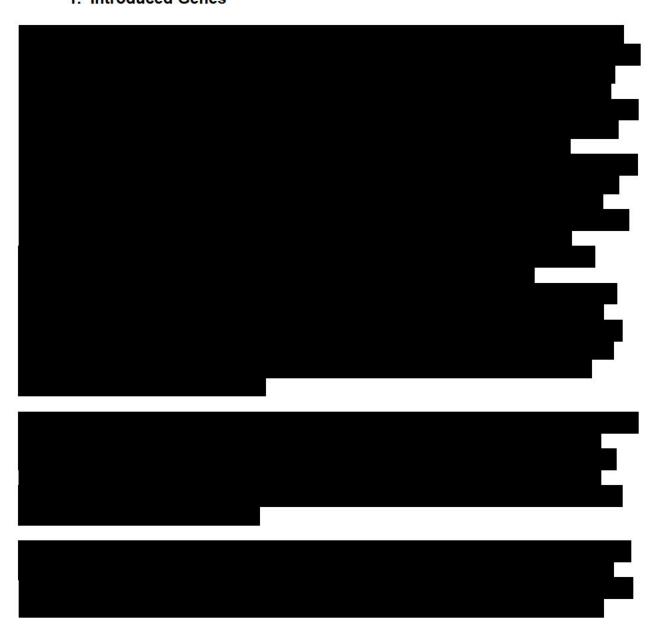
V. CONSTRUCT ANALYSIS

A. Construction of the Submission Microorganism



B. Potential Hazards of the Genetic Modifications

1. Introduced Genes





VI. HUMAN HEALTH HAZARDS

The potential human health hazards associated with the four submission strains have been evaluated by Ward (2015).

VII. ECOLOGICAL HAZARDS



VIII. INTEGRATED RISK ASSESSMENT



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